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**AMENDMENT****In the Claims:**

Please substitute Claims 1, 5, and 10 presented below in marked-up form for previous  
10 Claims 1, 5, and 10. A complete listing of all claims is as follows.

1. (**currently amended**) A method of making a MOSFET, comprising:

first providing a substrate having a gate oxide and gate thereon, the gate defining a channel region of no more than 50 nm length;

15 second performing a source/drain extension implant;

third forming a spacer on the gate;

fourth performing epitaxy to form raised source/drain regions;

fifth forming a silicide on the gate and source/drain regions;

sixth removing the spacer, thereby forming a void region between the source/drain 20 regions and the gate;

seventh performing a halo implant through the void, thereby forming a halo around the gate in the channel region; and

eighth completing the MOSFET.

25 2. (**original**) A method as recited in claim 1, wherein the source/drain extension implant comprises an approximately vertical implant to a depth of approximately 10 nm to 30 nm of ions selected from the group consisting essentially of B<sup>+</sup>, BF<sub>2</sub><sup>+</sup>, As<sup>+</sup>, Sb<sup>+</sup>, P<sup>+</sup>.

30 3. (**original**) A method as recited in claim 1, wherein the spacer comprises a nitride.

4. (**original**) A method as recited in claim 1 wherein the halo implantation comprises an approximately vertical implant to a depth of approximately 40 nm to 100 nm of ions selected from the group consisting essentially of B<sup>+</sup>, BF<sub>2</sub><sup>+</sup>, Ga<sup>+</sup>, In<sup>+</sup>, As<sup>+</sup>, Sb<sup>+</sup>, P<sup>+</sup>.

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- 5        5. (**currently amended**) A method of making a MOSFET, comprising:  
first providing a substrate having a gate oxide and gate thereon, the gate defining a channel region of no more than 50 nm length;  
second performing a vertical source/drain extension implant to a depth of approximately 10 nm to approximately 30 nm;
- 10      thereafter, forming a spacer on the gate;  
          forming raised source/drain regions;  
          forming a silicide on the gate and source/drain regions;  
          removing the spacer, thereby forming a void region through the silicide between the source/drain regions and the gate;
- 15      performing a halo implant through the void, thereby forming a halo around the gate in the channel region; and  
          completing the MOSFET.

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20      7. (**cancelled**)

6. (**original**) A method as recited in claim 5, wherein the spacer comprises a nitride.

25      8. (**original**) A method as recited in claim 5, wherein the source/drain regions are formed by epitaxy.

9. (**original**) A method as recited in claim 5 wherein the halo implantation comprises an approximately vertical implant to a depth of approximately 40 nm to 100 nm of ions selected from the group consisting essentially of B<sup>+</sup>, BF<sub>2</sub><sup>+</sup>, Ga<sup>+</sup>, In<sup>+</sup>, As<sup>+</sup>, Sb<sup>+</sup>, P<sup>+</sup>.

- 5        10. (currently amended) A method of making a MOSFET, comprising:  
providing a substrate having an isolation trench and a gate oxide and gate thereon, the  
gate defining a channel region of no more than 50 nm length;  
performing an approximately vertical source/drain extension implant in a region from the  
isolation trench to the gate, to a depth of approximately 10 nm to approximately 30 nm;  
10      forming a nitride spacer on the gate;  
performing epitaxy to form raised source/drain regions;  
forming a silicide on the gate and source/drain regions;  
removing the spacer, thereby forming a void region through the silicide between the  
source/drain regions and the gate;  
15      performing an approximately vertical halo implant to a depth of approximately 40 nm to  
approximately 100 nm, thereby forming a void region around the gate in the channel region; and  
completing the MOSFET.

- 20      11. (original) A method as recited in claim 10 wherein the halo implantation comprises  
implantation of ions selected from the group consisting essentially of  $B^+$ ,  $BF_2^+$ ,  $Ga^+$ ,  $In^+$ ,  $As^+$ ,  $Sb^+$ ,  
 $P^+$ .
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